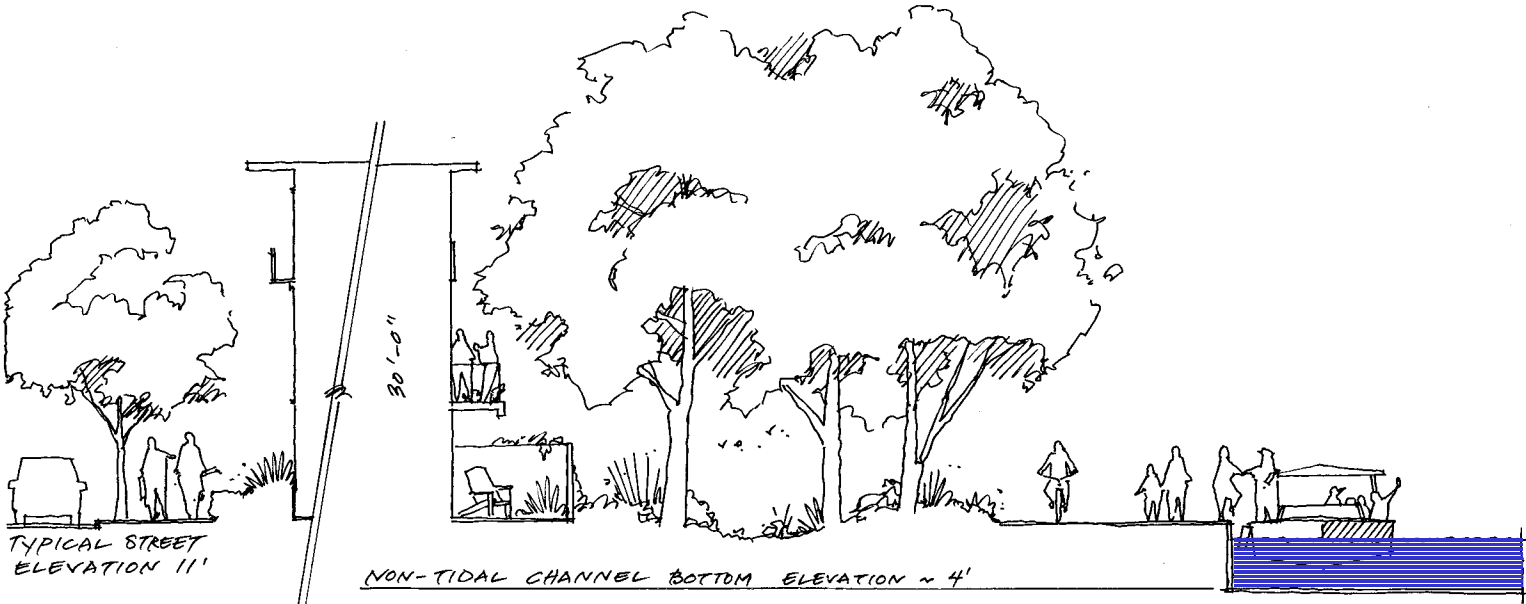
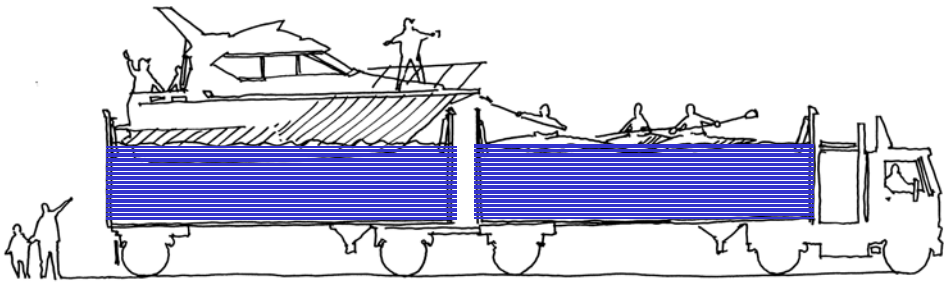


The Navigable Channel alternatives which are connected to one or both of the bays would be influenced by the approximately 5.5 feet of daily tidal fluctuation. These sections illustrate the required grading and removal of soil to reach a depth to accommodate boats. Floating walkways and docks are typically used to provide access to the water.



The Non-Tidal Channel alternative, not linked to the San Diego River or the bays, could be at a higher elevation.



The Park System Link Alternative would require boaters to find other means of transit. (This was kindly suggested by a community member).

BAY TO BAY LINK FEASIBILITY STUDY

Construction & Maintenance Costs

The evaluation of the three Study Alternatives includes a comparison of the following:

- opinion of construction and maintenance costs of identifiable components;
- opinion of relative implementation feasibility;
- economics

Development Costs of Improvement				
	Biological Resources	Park System	Non-Tidal	Navigable Channel
	Coastal marsh habitat mitigation			550,000
	Mudfalt habitat mitigation			5,000
	Sand bar habitat mitigation			76,000
	Open water habitat mitigation			183,000
	Interpretive Facility	4,000,000	4,000,000	4,000,000
	Outdoor interpretive kiosk	500,000	500,000	500,000
	Interpretive trail, 0.5 mile, 4 stations	50,000	50,000	50,000
	Subtotal	4,550,000	4,550,000	5,364,000
	Hydraulics/Waterfront Engineering	Park System	Non-Tidal	Navigable Channel
	Excavate channel		900,000	11,200,000
	Excavate channel		900,000	
	Construct seawall along excavated channel		9,600,000	52,000,000
	Construct seawall along excavated channel		14,400,000	
	Dredge through levee			810,000
	Construct Flood gate			1,000,000
	Levee adjustments for flood gate			500,000
	Dredge the San Diego River			8,500,000
	Construct Gate at Mission Bay			750,000
	Pumps for water circulation		300,000	750,000
	Remove 96" Sewer Main		-	1,140,000
	Remove 30" Sewer Main			150,000
	Remove 56" Storm Drain		255,000	800,000
	Remove 24" Water Main			150,000
	Construct 96" Sewer Main		-	4,400,000
	Construct 30" Sewer Main			600,000
	Construct Sewer Lift Station		-	6,000,000
	Construct 56" Storm Drain		960,000	3,000,000
	Construct 24" Water Main			600,000
	Construct Storm Drain Network (Local Streets)	2,500,000	2,500,000	2,500,000
	Subtotal	2,500,000	29,900,000	94,900,000
	Dry Utilities	Park System	Non-Tidal	Navigable Channel
	Telephone Distribution	5,262,712	16,338,323	5,262,712
	Telephone Transmission	4,009,211	12,449,904	4,009,211
	Cable Television (CATV) Distribution	885,186	1,426,390	885,186
	Cable Television (CATV) Transmission	802,146	1,477,338	802,146
	Gas Distribution	2,741,593	6,681,752	2,741,593
	Gas Transmission	522,476	-	522,476
	Electric Distribution	17,023,675	46,162,823	17,023,675
	Electric Transmission	495,153	-	495,153
	Subtotal	31,800,000	84,600,000	31,800,000

	Hazardous Materials	Park System	Non-Tidal	Navigable Channel
	Removal of contaminated soils, transportation	-	2,895,750	16,875,000
	Subtotal	\$ -	\$ 2,895,750	\$ 16,875,000
	Parks and Open Space	Park System	Non-Tidal	Navigable Channel
	Sidewalk pavement, colored concrete, exposed aggregate	6,272,000	5,656,000	5,880,000
	Channel ROW trees, groundcover & irrigation	-	4,704,000	6,115,200
	Street median trees, groundcover & irrigation	2,240,000	2,020,000	2,100,000
	Street tree planting, 36" box in tree grate & irrigation	2,240,000	2,020,000	2,100,000
	Frontage zone shrubs, groundcover & irrigation	806,400	727,200	756,000
	Seating	716,800	646,400	672,000
	Trash receptacles	149,333	134,667	140,000
	Pedestrian lighting	1,680,000	1,515,000	1,575,000
	Transit shelters	224,000	202,000	210,000
	Floating docks	-	-	3,120,000
	River Channel Walk			300,960
	Park construction	14,275,000	7,325,000	8,400,000
	Subtotal	\$ 28,603,533	\$ 24,950,267	\$ 31,369,160
	Subtotal	99,475,292	180,676,396	236,244,073
	Contingency			
	20% Contingency	19,900,000	36,200,000	47,300,000
GRAND TOTAL		\$ 119,375,291.75	\$ 216,876,396.13	\$ 283,544,072.88

	Annual Maintenance	Park System	Non-Tidal	Navigable Channel
	Park Maintenance	571,000	293,000	336,000
	Maintenance of habitat areas			200,700
	Biological Monitoring			33,450
	Maintenance dredging in south shannel near SD Bay			126,000
	Maintenance dredging in north channel near SD River			800,000
	Maintenance dredging within San Diego River			2,600,000
	Pump maintenance		10,000	30,000
	Subtotal	600,000	400,000	4,200,000
	20% Contingency	120,000	80,000	900,000
	Total Annual Maintenance	\$ 720,000	\$ 480,000	\$ 5,100,000

Hazardous Materials Approach for Redevelopment Projects

A variety of methods can be utilized to identify potential environmental issues regarding a property to assess the extend and severity of existing contamination, to remediate the contamination in a cost-effective manner, to meet regulatory compliance requirements and to manage low-level, post-remediation contamination that may be an issue during construction. A generalized project management approach is summarized below.

- Understand the site, perform a Phase I Environmental Site Assessment (ESA).
- Develop and define the project description.
- Develop a partnering relationship with the project stakeholders
- Develop a strategy for assessing and remediating potential environmental conditions.
- Address hazardous building materials.
- Perform a Phase II ESA.
- Prepare a project specific soils protocol.
- Prepare contractor bid specifications.
- Perform health and ecological risk assessment
- Know the regulatory requirements
- Develop generic protocols.

Hazardous Release Regulations, Programs, Guidelines & Mechanisms

The following are typically combined to assist in the investigation and remediation of hazardous sites:

- Polanco Redevelopment Act
- Site Designation Program
- Voluntary Assistance Program
- U.S. Environmental Protection Agency Sites Program
- CALReUSE Program
- CLEAN Loan Program
- California Land Environmental Restoration and Reuse Act
- SWRCB Tank Fund

Source: Letter to CCDC from Ninyo & Moore, see the Appendix.

At a Feasibility Study level of investigation, it is difficult to calculate the costs for mitigating sites contaminated by hazardous materials.

For planning purposes WRT consulted San Diego’s Center City Development Corporation (CCDC). Based on the CCDC’s experience in the brownfield remediation program for the Downtown redevelopment of the Ball Park. This study applied aggregate costs for removal of assumed contaminated soils associated with sites identified with open and closed DEH cases for the Navigable Channel and Non-Tidal Alternatives.

Property owners in San Diego’s East Village benefited from CCDC’s leadership in reduced consultant fees and permitting time to properly address contaminated soils prior to development.

While any change of land use on a site identified to have/had problems with an underground storage tank requires careful investigation, planning and design for approval by the County Department of Health it is generally understood that use as park land can positively contribute to bioremediation.

Caveats for Soil and Utility Costs

Dry Utility Costs and Recommended Approach

The dry utility system portion of the cost estimates are representative of the costs dry utility companies would project as their cost to remedying impacts to their systems as a result of improvements proposed by the Bay to Bay Link Feasibility Study.

The dry utility system cost estimates include all work dry utility companies would normally require in order to complete the removal, relocation and undergrounding of existing overhead and underground facilities. The Bay to Bay Study Alternatives will cause all dry utility companies that have facilities in the area to have to modify their existing systems in order to accommodate planned improvements that will displace the utility’s facilities. As a result, local utility companies will request full compensation for any work that they must perform to accommodate the proposed improvements.

Strategic Dry Utility Action Plan – Assuming a proposed project’s budget cannot afford paying local utility companies the fees indicated in the report, the project must develop a strategy which will result in significant reductions in the projects dry utility cost obligation. The Strategic Dry Utility Action Plan, if developed and successfully implemented by a qualified dry utility consulting engineer, will force local utility companies to substantially reduce the project’s dry utility financial obligation.

Most often a Strategic Dry Utility Action Plan, for public sector projects will include the following: 1). Utility system design control to achieve favorable utility service rule application, 2). Input on information that will be shown on the project consultant teams plans, 3). Public agency enforcement of utility franchise agreements, 4). Utility’s adherence to state and federal case law.

In our professional opinion, the project’s financial obligation can be reduced by eighty to ninety percent depending on the successful implementation of a Strategic Dry Utility Action Plan and the number and types of easements utilities may have for their existing facilities.

BAY TO BAY LINK FEASIBILITY STUDY

Comparative Evaluation

This table illustrates the relative feasibility of each alternative for the topics that can not have costs assigned.

Relative Feasibility				
	Water Quality	Park System	Non-Tidal	Navigable Channel
	Avoid water quality impacts related to mixing of flows between water bodies	10	10	1
	Avoid erosion and transport of material to water body receptors, particularly at water	5	5	1
	Avoid discharge of construction-related hazardous materials	6	5	1
	Minimize need to dewater construction site, particularly in areas with contaminated	7	3	1
	Avoid long-term generation/ transport of urban contaminants	6	6	3 to 4
	1-3 = low feasibility; 4-6 = moderate feasibility; 7-10 = high feasibility			
	Biological Resources			
	Avoid mixing waters of varying salinities	10	10	1
	Avoid potential transport of exotic species from discharge ballast water	10	10	2
	Avoid direct and/or indirect impacts to wetland habitats and associated species	10	10	1
	Minimize construction noise adjacent to wetland habitats	10	9	3
	Minimize presence of humans and motorized watercraft adjacent to sensitive habitats	10	10	1
	Plant only native species in areas connected to native habitats	10	10	7
	1-3 = low feasibility; 4-6 = moderate feasibility; 7-10 = high feasibility			
	Noise			
	Minimize construction noise impacts on sensitive receptors	6	5	4
	Minimize public access to areas where public access is currently limited	5	5	4
	Minimize noise impacts associated with motorized water craft near sensitive receptors	8	6	4
	1-3 = low feasibility; 4-6 = moderate feasibility; 7-10 = high feasibility			
	Visual Resources			
	Minimize auto and pedestrian bridges	6	5	4
	Minimize visual impacts associated with demolition and construction	9	5	4
	1-3 = low feasibility; 4-6 = moderate feasibility; 7-10 = high feasibility			
	Air Quality			
	Minimize construction emissions by minimizing the amount of earth movement	5	5	4
	Avoid contributing to traffic congestion that could result in "hot spots"	7		
	4-6 = moderate feasibility; 7-10 = high feasibility			
	Cultural Resources			
	Avoidance of Historic Structures	5	5	5
	Avoidance of Archaeological Sites	9	9	9
	4-6 = moderate feasibility; 7-10 = high feasibility			
	Geotechnically Related Impact to the Project	Park System	Non-Tidal	Navigable Channel
	Relative Amount of Earthwork	2	3	5
	Shallow Groundwater	2	4	5
	Excavatability by Dredging	1	3	4
	Unstable Slopes Requiring Stabilization	1	2	4
	Fault Hazards	1	1	1
	Susceptibility to Liquefaction	2	4	4
	5 = highest impact			

Construction costs associated with the Geological conditions are accounted for in the engineering estimates.

BAY TO BAY LINK FEASIBILITY STUDY

As shown in Table 1, all of the alternatives incur deficits. In present value terms*, the estimated order-of-magnitude deficits range from <\$456 million> for the Navigable Channel Alternative (Alternative 1), <\$296 million> for the Non-Tidal Alt. (Alternative 2), and <\$215 million> for the Park System Alt. (Alternative 3), before taking into account net fiscal costs to serve the potential new population and land uses associated with the Bay-to-Bay Link Feasibility Study.

The capitalized value of annual fiscal costs to serve the population housed in development built in conjunction with a Bay-to-Bay alternative would increase deficits further. The City would incur these costs, however, regardless of where in the city the population is located. These costs are not directly attributable to a Bay-to-Bay alternative.

Detailed estimates for each alternative are presented in Appendix XIII Economics.

These order-of-magnitude estimates are for planning purposes only based on broad hypothetical development scenarios and assumptions about future land use and development, and should be reviewed only in aggregate. They do not in any way represent site appraisals or valuations for specific properties, and should not be relied upon for financial offerings without further due diligence.

Project Costs

The major sources of project costs include:

- ❑ Property acquisition costs
- ❑ Relocation costs
- ❑ Development costs
- ❑ Annual maintenance costs

* 5% discount rate applied to a 2003 constant dollar cash flow, reflecting real cost of public funds and risk of approximately 2-3%.

Most of the deficit is attributable to the estimated property acquisition costs and development costs associated with each alternative. Preliminary order-of-magnitude property acquisition cost estimates, which range from \$362 million in Alternative 1. to \$276 million in Alternative 2., are particularly high because of the need to buy occupied property with existing commercial, industrial, and residential buildings.

Consequently, the City or Redevelopment Agency would have to purchase not just land for the right-of-way, but buildings as well, and would have to incur relocation costs for displaced residents and businesses, including good will associated with existing businesses. A 20 percent allowance was assumed for relocation and goodwill costs, which could change as the project is refined. Also, the existing leases on the City’s Sports Arena property would have to be purchased, including the remaining

Economic Summary

value of the improvements. An estimated value of the commercial leases on the Sports Arena site and surrounding properties owned by the City of San Diego was estimated for planning and analysis purposes; however, these values are not appraisals and should not be relied upon for negotiations.

Preliminary estimated development costs are also significant, ranging from \$284 million in Alternative 1 to \$119 million in Alternative 3.

The capitalized value of annual maintenance costs, which may range from \$480,000 to \$5.1 million per year, is another project cost that must be funded.

These costs occur over time as the project is being phased. The estimated present value of the above costs range from <\$325 million> under Alternative 1 to <\$368 million> under Alternative 3.

Table 1, Summary Results of the Alternatives Studied							
		Surplus/(Deficit) (\$2003)					
		Alternative 1: Navigable Channel		Alternative 2: Non-Tidal Channel		Alternative 3: Park System Link	
Present Value of:							
	Project Generated Net Revenue (Deficit)	(\$479,500,668)		(\$329,892,989)		(\$244,786,953)	
	Tax Increment Revenue (Deficit) to Redevelopmer	\$24,457,346		\$30,251,265		\$26,129,446	
	Property Tax Revenue (Deficit) to City of San Diego	\$2,417,491		\$2,994,616		\$2,570,078	
	Net Sales Tax & TOT Revenue (Deficit)	(\$3,181,015)		\$257,999		\$996,956	
Total Net Revenue (Deficit)		(\$455,806,846)		(\$296,389,108)		(\$215,090,473)	
Source: Economics Research Associates.							

Project Revenues

The major sources of project revenues include:

- ❑ The resale of remnant parcels & capitalized value of public land leases
- ❑ Property tax increment
- ❑ Net increases in general fund taxes

The project may generate significant revenue by selling or leasing remnant land from parcels that were acquired for the Bay-to-Bay right-of-way, but is no longer needed, and some minor revenue from marina leases under Alternative 1. The revenue stream, however, occurs over time, and much of it is deferred until after the Bay-to-Bay project has been built. The estimated present value of the revenue stream ranges from \$103 million in alternative 2 to \$80 million in alternative 3. It was assumed that the remnant parcels would be sold as semi-improved tracts, with some backbone infrastructure in place, to builders who must still incur the costs of in-tract infrastructure. .

While revenues occur in later years, most of the costs occur in early years. In present value terms, the value of the remnant land that is resold or leased, including substantial site premiums associated with adjacency or proximity to the water or greenbelt, may cover as much as 17 percent of the total project costs under Alternative 1, 24 percent under Alternative 2, and 25 percent under Alternative 3. This analysis was based on the land use plan and densities consistent with the existing community plan, and an assumed hypothetical development program for the Sports Arena site. Generally, the development program assumed housing at 29-units per acre, and commercial retail at a 0.4 floor-area ratio and commercial office at a 1.25 floor-area-ratio to reflect a compact, pedestrian-oriented pattern that would not exceed the 30-foot designated height limit.

An increase in allowable development capacity and height would probably enhance land values, which could reduce the estimated deficit.

In short, to implement the alternatives, the City would have to purchase the full value of properties with buildings and businesses, and sell back only a portion of what it purchases as simply land, albeit with amenity premiums.

An additional source of revenue is the estimated present value of tax increment from the redevelopment of properties associated with the Bay-to-Bay project. The estimated present value of the tax increment revenue generated for the RDA, however, is only approximately 4 to 8 percent of the present value of total project costs. The Bay-to-Bay project would remove a significant amount of land from the tax rolls as property is acquired. The land dedicated to the Bay-to-Bay right-of-way would be off the tax roles permanently. During the time of property acquisition and Bay-to-Bay development, the tax base is negative, which would affect the tax increment of the broader North Bay Redevelopment Project Area. While new development associated with the reuse of remnant parcels and the portion of the Sports Arena site that is not used for a canal or greenbelt would generate new tax increment, the tax increment revenue is over the long term, and is less significant in present value terms.

Tax increment impacts were estimated only for the parcels that are acquired for the Bay-to-Bay project, and those that are adjacent or near the Bay-to-Bay right of way. There may be some marginal increase in value, and, therefore, tax increment of other properties in the redevelopment project area that are not located near the canal or greenbelt. Interior lots in golf-course communities, which typically attain a 5 percent premium, may provide some guidance.

Economic Summary

While the redevelopment of remnant parcels would generate new sales taxes, it would not compensate for the significant amount of retail land and uses taken away by the Bay-to-Bay project, even after assuming transfers. In fact, it could result in a fiscal loss since the amount of retail space removed far exceeds the amount of new retail space developed on remnant parcels. Since some of the loss or gain of taxable retail sales would probably result in a transfer of retail sales activity to elsewhere in the community or city, the net loss to the City may not be as great as initially estimated. Most of the net new general fund revenue would come from transient occupancy taxes from an assumed hotel associated with each alternative.

Annual Fiscal Costs

Annual fiscal costs to service the new population and land uses were generally estimated by converting households plus employment into Equivalent Dwelling Units (EDU's) and applying a City General Fund factor per EDU to each alternative. The estimated capitalized value of annual fiscal operating costs to provide public services ranges from \$88 million to \$106 million. These costs would occur whether the new population and land uses occurred within the Bay-to-Bay project area or elsewhere in the City. They are costs that the City incurs in accordance with its responsibility to serve its citizens, and are not costs that are strictly associated with the Bay-to-Bay project.

BAY TO BAY LINK FEASIBILITY STUDY

Recommendations to Reduce Project Deficits

The City will have to use external funding sources to finance any of the Bay-to-Bay alternatives, such as voter approved general obligation bonds, dedicated general fund sources, benefit assessment districts or special tax districts, and/or state and federal grants. For example, annual debt service to finance the estimated project deficits only, excluding the capitalized value of fiscal costs to serve the associated population and land uses, may be as much as \$38.8 million under Alternative 1, \$25.2 million under Alternative 2, and \$18.3 million under Alternative 3*. These amounts are more than the directly affected properties (parcels adjacent to the Bay-to-Bay link and remnant parcels that are resold or leased) could afford if a community-approved benefit assessment or special tax district were formed. A voter-approved benefit assessment district or special tax district would probably have to be much broader to raise sufficient funds without overburdening property owners, and include much of the North Bay area and more. If this tax base is still insufficient, additional financing would have to come from a citywide, voter-approved financing mechanism, such as a general obligation bond, increase in sales or transient-occupancy taxes, or as part of a citywide special district.

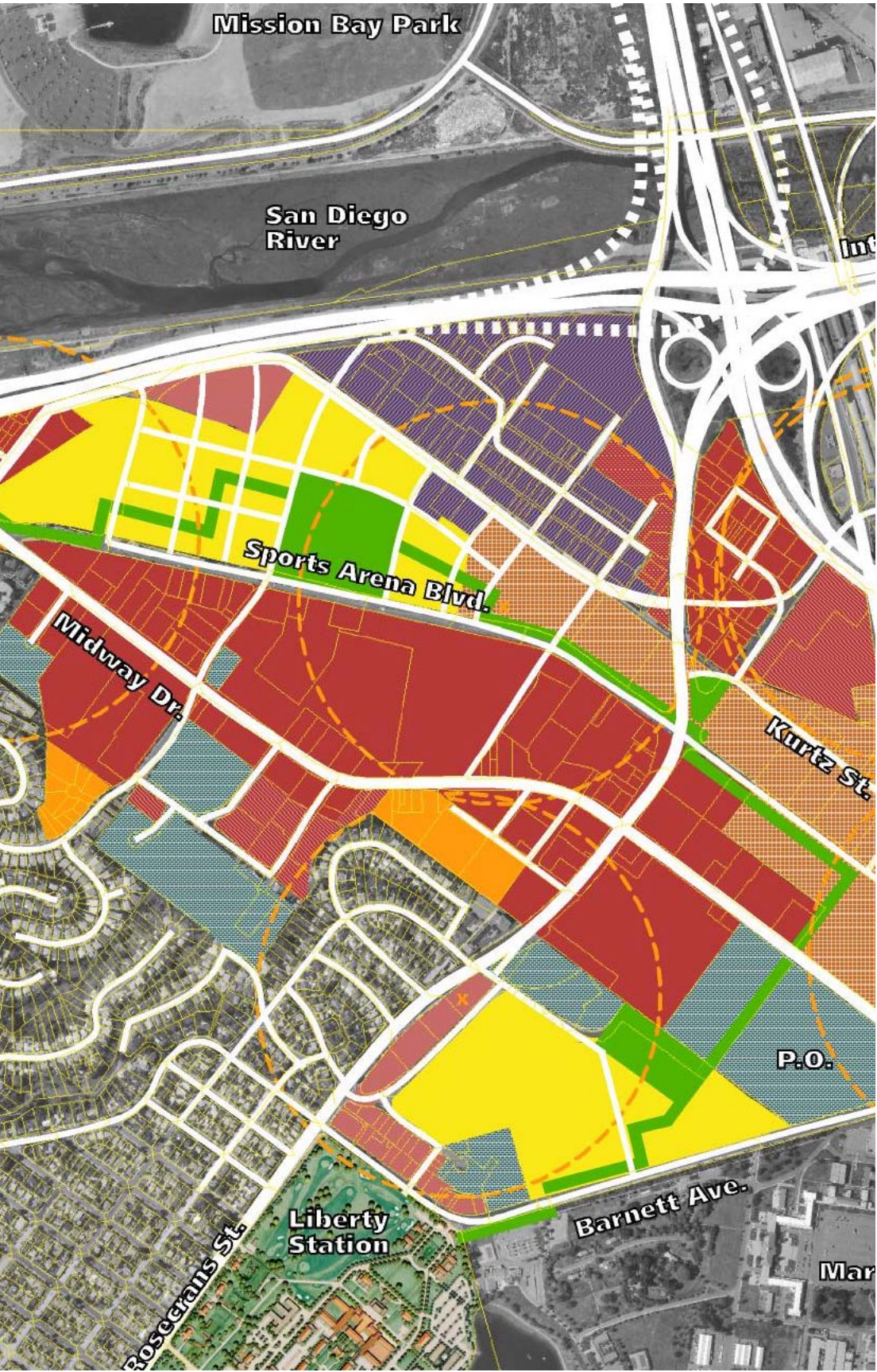
** Assuming a 25-year bond, at 5 percent, and a 120 percent debt coverage ratio.*

Alternatively, the City could reduce project deficits, particularly those associated with acquisition and development costs, by redesigning the Bay-to-Bay link initially as a greenbelt linear park, designated within the North Bay's larger properties such as the Sports Arena site, and those to the east of Rosecrans Boulevard. Implementation would only occur as these properties redevelop, with the greenbelt right-of-way a condition for plan amendments, zoning changes, and subdivision approval, perhaps with a density bonus to compensate. While the Sports Arena site may be redeveloped in the mid-term, and could accommodate a portion of the linear park, several of the larger parcels in the area, such as the Navy's property, MCRD, and GSA properties are not proposed for redevelopment anytime soon. Consequently, implementation of the completed Bay-to-Bay link may occur over decades, rather than years, under this approach. However, the cost would be less if property acquisition costs can be minimized, and the long-term possibility of converting the greenbelt into a channel at some future time would not be precluded.



Small parks within the blocks of residential and multi-use development serves as a common amenity.

Economic Summary



Parks located within publicly owned property to serve the existing and new residential community linked by a parkway.

DRAFT

BAY TO BAY LINK FEASIBILITY STUDY



Park System Link on Public Land Concept Alternative - Phase 2

Acknowledgements

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Transportation Planning

Professional Consulting Group
Dry Utilities and Infrastructure



The Study Area in comparison to relevant locations.